

REMARKS

1. Claim Amendments.

Claim 1 has been amended to clarify that the natural mixture is treated with lipase in the presence of an alkoxide and that the resulting ester has spermicidal and/or antiviral properties. Support for this amendment can be found on page 5, line 4 through page 6, line 15 of the Specification as originally filed. No new matter has been added.

Claim 2 also has been amended to clarify that the natural mixture is treated with lipase in the presence of an alkoxide and that the resulting ester has spermicidal and/or antiviral properties. Support for this amendment can be found on page 5, line 4 through page 6, line 15 of the Specification as originally filed. No new matter has been added.

Claim 3 has been amended to clarify that the natural mixture also is treated with an alkoxide in the presence of that the resulting ester has spermicidal and/or antiviral properties. Support for this amendment can be found on page 5, line 4 through page 6, line 15 of the Specification as originally filed.. No new matter has been added.

Claim 4 has been cancelled without prejudice.

Claims 5 and 6 have not been amended in this response.

Claims 7-27 have been cancelled without prejudice.

Claims 28 – 30 have not been amended in this response.

Claims 31 – 54 have been cancelled without prejudice.

Claim 55 has been amended to clarify that the natural mixture is treated with lipase in the presence of an oxide and that the resulting ester has spermicidal and/or antiviral properties. Support for this amendment can be found on page 5, line 4 through page 6, line 15 of the Specification as originally filed. No new matter has been added.

Claims 56 and 57 have been cancelled without prejudice.

New independent Claim 58 claims the invention with more particularity and have been formulated based on the original claims. No new matter has been added.

New Claims 59-63 depend from Claim 58 and provide for additional features for the invention found in the various examples in the Specification as originally filed. No new matter has been added.

New Claims 64-67 depend from each of independent Claims 1, 2, 3, and 55 and provide for the special case where the alkoxide is a sodium alkanoate metal salt, as provided for in many of the examples in the Specification as originally filed. No new matter has been added.

New Claims 69-74 are identical with several of the original claims, but with dependencies changed, to recoup subject matter of cancelled claims. No new matter has been added.

2. 35 USC 112 Rejections.

Claims 56 and 57 have been rejected under 35 USC 112. Applicant has cancelled these claims to obviate these rejections.

3. 35 USC 102 Rejections.

Claims 1, 3, 5-8, and 55-57 have been rejected under 35 USC 102(b) as being anticipated by the Bisht reference. In view of Applicant's amendments, Applicant submits that these rejections are moot.

Anticipation under 35 USC 102(b) requires "the disclosure in a prior art reference each and every element of the claimed invention." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 USPQ2d 1081 (Fed. Cir. 1986); *see also verdegall Bros. V. Union Oil Co. of California*, 814 F2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) ("a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference"). The absence of one element from the cited prior reference negates anticipation. *See Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 224 USPQ2d 409 (Fed Cir. 1984). Anticipation was intended to apply in the limited situations in which one reference incorporates all the element of a claim in a subsequent invention because the non-obvious standard was intended to cover broader obvious leaps from a reference to a claim or from combined references to a claim. *See Titanium Metals Corp. v. Brenner*, 227 USPQ 773 (Fed. Cir. 1985).

While the Bisht reference discloses some general formulas for sophorolipids, it does not disclose a method for producing sophorolipid esters that are formulated to be

dispensed or applied to kill or inhibit sperm or viruses. Specifically, at most the Bisht reference shows that certain sphingolipids are known in the art and can be acylated enzymatically. The Bisht reference discloses the regioselectivity of sphingolipids in general and the preparation of regioselectivity modified sphingolipids that contain carboxyl functionalities in specific. It is opined that use of such glycolipids is promising to treat very severe immune disorders such as cancer, autoimmune disorders, septic shock, angiogenesis, and apoptosis. However, the Bisht reference specifically does not teach how the sphingolipids may be used to treat disorders.

When compared to the present invention, the Bisht reference does not suggest that sphingolipid esters have spermicidal and/or antiviral properties or that sphingolipid esters can be formulated as a dispensable composition. Further, as the claims of the present patent application are not claiming the sphingolipid itself, but a method for making a dispensable sphingolipid having spermicidal and/or antiviral properties, the present invention is distinct from the Bisht reference. As such, Applicant requests that the examiner withdraw this ground for rejection.

Because the Bisht reference does not disclose each and every element of independent Claims 1-3, as well as independent Claims 55 and 60, it cannot anticipate these claims. Further, as the remaining claims depend directly or ultimately from Claims 1-3, and new Claims 55 and 60, the Bisht reference cannot anticipate the remaining claims. For these reasons, Applicant requests that the Examiner find the pending claims allowable.

4. 35 USC 103 Rejections.

Claims 1-3, 5-8, 12, 28-30, and 55-57 have been rejected under 35 USC 103(a) as being anticipated by the Bisht reference in view of US Patent No. 5,545,401 to Shanbrom (Shanbrom '401). In view of Applicant's amendments, Applicant submits that these rejections are moot.

For a claim to be determined obvious (or nonobvious) under 35 USC 103, the claimed material must have been obvious to person of ordinary skill in the art from the prior art. An obviousness determination requires examining (1) the scope of the prior art, (2) the level of skill in the art, and (3) the differences between the prior art and

Applicant's invention. *Litton Systems, Inc. v. Honeywell, Inc.*, 117 SCt 1270 (1970). A mere suggestion to further experiment with disclosed principles would not render obvious an invention based on those principles. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 19 USPQ2d 1432 (Fed. Cir. 1991). In fact, an applicant may use a reference as his basis for further experimentation and to create his invention. *Id.* To sustain a rejection under 35 USC 103, the examiner must establish a *prima facie* case of obviousness. MPEP §2142. To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2143.

As discussed above, the Bisht reference does not disclose a method for producing sophorolipid esters that are formulated to be dispensed or applied to kill or inhibit sperm or viruses. Shanbrom '401 merely is cited for the use of providone iodine as a spermicidal antiviral agent. A person having normal skill in this field would not have known that the sophorolipid compounds of the present invention would have spermicidal and/or antiviral properties. Based on the clarifications to Claims 1-3, the claims are not obvious in view of the cited art. As discussed above, as the present invention is not fairly taught or suggested by the cited prior art, the cited art cannot and does not make obvious the present invention as claimed, and Applicant requests that this ground for rejection be withdrawn.

5. Provisional Double Patenting Rejection.

Upon allowance of this patent application, Applicant will provide appropriate terminal disclaimers or other remarks at that time to address any double patenting rejection.

CONCLUSION

Applicant submits that the patent application now is in condition for allowance and issuance. If the examiner has any final concerns that can be addressed over the

telephone, please have the examiner contact the below-signed patent lawyer of record to expedite the issuance of the patent.

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